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A Washer for Clean, Bright Laundry

Cooperative Extension, South Dakota State University

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Website: extension.sdstate.edu
Phone: 605-688-4792
Email: sdsu.extension@sdstate.edu

a washer for clean, bright laundry

A day set aside for Wash Day is no longer necessary. Daytime, nighttime, rain, or shine are all good times for washing the clothes, because of modern laundry equipment. When choosing new equipment, remember that no washer is any better than the way it is used.

TYPES AND FEATURES

Which type washer will best fit my needs? Which is best for the size of my family, the type of clothing we use, our income, and our water supply? Are the special features true conveniences or are they gadgets? Which are most important to my particular situation? Am I willing to adjust to change and adopt new practices in the use of this machine?

You can do a good washing job in any washer if you: use the right amount and quality of water (temperature and softness); use the right amount and right type of detergent; and do not overload the machine (1 to 2 pounds less than recommended).

NON-AUTOMATIC WASHERS

Non-automatic washers have lower original cost, no installation cost, long life, are portable, take less hot water if same water is used to wash more than one load, and need service less often (which is less expensive when needed).

The washing mechanism is driven by a ⅓ or ¼ horsepower motor. Some machines have two speeds of agitation, a slow gentle action for delicate fabrics and a more vigorous agitation for sturdier clothes.

Other features to check are:

Construction—Look for a compact machine, light in weight but rigid in construction, welded or riveted together. If bolts are used they should be rust resistant and of the lock-washer type. All parts that come in contact with the clothes should be rustproof. The closer the legs extend to the top of the tub, the better braced it is and the more adequate the support.

Controls should be easy to operate, and high enough that you can reach them without stooping.

Motor should be enclosed, shielded from water, grounded and insulated from the frame of the machine. Desirable features are: (1) gear case assembled with a life-time bath of oil; (2) protective device on motor that cuts off the electric current if machine is overloaded.

Grounding Device—Check for a means of grounding the washer frame to avoid electric shock if electric insulation fails.

Cord should be long, rubber-covered, with easy-to-grasp plug. A cord reel or cord holder is a handy device to have.

Agitator should be sturdy, light, easily removed.

Wringer should be equipped with automatic safety release, easy to use; should have rubber rollers that are easy on buttons, fabrics; should have automatic (spring type) pressure control; and should be well balanced on tub. Check to see if the machine will tip over easily when tub is empty and wringer is in outboard position.

Spinner is a metal basket that forces water from clothes as it whirls at about 1,000 revolutions a minute. Basket should be large enough to hold a full load of clothes. The larger the diameter of the basket the greater the possibility of spinning vibration, thus the greater need of loading the spinner so weight is evenly balanced. The spinner is safer than a wringer to operate and is less damaging to clothing—no damage to buttons, no deep creases in fabric.

Cover should be hook-on removable type, or hinged. A rubber gasket on the lid protects rim and gives snug fit to prevent water from splashing out of the machine.

Casters should be large, rubber-covered, swivel casters that roll easily, with a locking device to keep machine from "walking" during use.

By **Isabel McGibney,** Extension Home Management Specialist

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Legs are adjustable on some machines, so tub can be raised or lowered to suit height of user. If you are exceptionally tall or short, this feature is important.

Drain can be gravity type or a motor driven pump. If there is a drain in the floor, gravity type will do; but a pump is well worth the additional cost. It saves stooping and is faster. Check to see whether the bottom of the tub slopes toward the drain opening. Ask dealer for a demonstration of how well the tub drains.

Tub—Most common tub material is porcelain enameled steel. It is attractive, easy to clean, moderate in cost, and fairly durable. Since porcelain enamel is glass fused on a metal base, it may crack or chip from sharp blows, and such damage cannot be repaired. Tubs of aluminum, stainless steel, and nickel-copper alloy are sturdy, long-lasting, and easy to clean, but more expensive. Aluminum may gradually become darker from soapy water unless it has been processed by the manufacturer to resist this discoloration. This will not affect washing results. Rubber material infused with metal is used in some tubs. It is flexible, tough, durable, and has an easy-to-care-for surface.

Special Features—Weigh the convenience against the extra cost of a timer device, 2 or 3 speed motor, double-wall tub, built-in water heating devices, and special styling.

AUTOMATIC WASHERS

Automatic Washer is a machine which, after being set in operation, completes the water filling, washing, rinsing, and water extraction and then stops without further attention.

According to tests at the United States Department of Agriculture no one type of washing action proved to be consistently better than another. All types do a good washing job if properly used. The 4 types of washing action are:

1. **Oscillating Agitator**

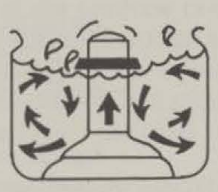
The agitator mechanism, built with blades or fins on a cone, oscillates back and forth on a central post to create motion of the soiled clothes through the water. Agitators may be of metal or plastic—solid or perforated. The fins or blades may be in a vertical or spiral position, and they vary in number, size, and design with the different makes. More manufacturers use this type of washing action than any other.

2. **Cylinder (Tumbler)**

A perforated cylinder tub, usually of porcelain enameled steel, holds the clothes. It revolves on either a horizontal or an inclined axis in a larger tub that holds the wash water. Inside the cylinder are baffles, or smooth projections designed to carry the clothes through the water, then out of it. This process creates motion in the water and a cleansing action.

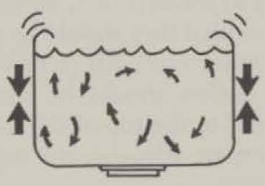
3. **Pulsator Agitator**

An agitator with rubber fins at the top and skirted-bottom moves rapidly up and down. This sets up a circular action in the water from top to bottom, forcing it repeatedly through the clothes as they are kept moving.



4. **Agitated Tub**

Tub design plus movement produces the washing action. Bouncing or tossing of the inner tub creates a motion in the water in an up-and-down direction. This action sets the clothes in motion against the swirled, corrugated sides and bottom of the interior. The bottom of the tub is shaped like an inverted bowl. This, plus the fact that the tub tips slightly to one side, moves the clothes around the center in one direction.



Automatic washers fill by one of two methods:

(1) A timed fill in which water fills for a set length of time and then cuts off.

(2) A metered fill controlled by a float valve or air pressure.

If water pressure in your home is low or erratic, a timed fill might result in the water being cut off before the washer is properly filled. Some time-filled mechanisms can be adjusted for low pressure. If water pressure is below 20 pounds the metered fill would be the better choice.

No one brand of washer will have all the advantages. They vary in length of time required to run through an entire cycle from 30 to 45 minutes. Total water used per cycle will range from 25 to 55 gallons. Their spinner speed is somewhere between 500 to 1,100 revolutions per minute. (The higher the speed the dryer the clothes.) In hot water per load they vary from 10 to 35 gallons.

For your particular needs which of the following are true convenience features: flexible control dial, allowing for multiple washing cycles? Can it be set for any length of wash, to rinse or spin at any point, for one rinse or two, for different temperatures, for different size of loads? Automatic safety device for out-of-balance loads? Top that can be used for work surface? Storage compartment? "Fluff" cycle? Cycle guide lights? Washing instructions on lid? Lid interlock switch? Self-leveling rear legs? Scales on door for weighing load? Automatic dispensers for bleach, bluing, fabric softeners, and detergent?

WASHER-DRYER COMBINATION

In a washer-dryer combination, the clothes are washed, rinsed, and dried in the same machine. The chief advantage is saving of floor space. The complete cycle takes up to 1½ hours. This means a change in laundry habits.

Before buying, compare the combination with the separate units: original cost, operating cost, time required for complete washing and drying, space available, and your work schedule.

USE AND CARE

Read and follow the directions in the instruction book. Each manufacturer provides the same wash and rinse action throughout their line, but the budget model is not as automatic, flexible, or convenient, particularly for lingerie, synthetics, wash-and-wear garments, and other special laundering.

Non-Automatic Washer. (1) If the washer is stored in a cold place, the oil or grease in the motor may be stiff. Running the motor under these conditions may result in damage to motor or a blown fuse. Warm the machine before starting the motor. (2) Fill so clothes and water come to water line. Too little water does a poor washing job. Too much water can run down the center shaft into the gear case and cause motor trouble. (3) Weigh the load, overloading will result in gear trouble, poor wash job, and excessive wear on clothes. (4) Measure the detergent, use the right amount and type, too much acts as a buffer and does not clean well. (5) Learn to use the time control so no damage will result. Turn off agitator before resetting for second load. (6) Remove agitator when washing is finished, clean and dry. (7) Release pressure on wringer rollers when not in use. (8) Load the spinner evenly to cut down on vibration. (9) Wash surfaces of machine with soap and water, rinse with clear water and dry. Wax every few months to save the finish. Rinse tubs and wringer with clear water and dry. Remove lint from drain screen. Drain all water from discharge hose. Store with agitator off, lid slightly open and drain open. (10) Look for U L (Underwriters' Laboratory) seal on any washer. This assures you that the washer is electrically safe, made of suitable materials with satisfactory workmanship. When you connect or disconnect plug, stand on dry floor and be sure your hands are dry. Cord should be heavily insulated and rubber covered. Keep in good repair. Disconnect by grasping the plug, not the cord.

Automatic Washers: (1) For general family wash, whites and color-fast cottons, and linens, follow your direction book for loading and setting controls. Measure detergent and use correct type; low-sudsing detergents are usually best in tumble type machine or front opening type. Set dial for hot (140°-160°F.) water and for 10 to 15 minutes washing period. (2) For heavily soiled cotton articles, directions are the same as above for loading and use of detergent. Set dial at hot for oily soil, otherwise warm to medium (100°-120°F.). Wash for 5 minutes, then run out dirty water. Fill washer again and proceed as for general wash. If soil is extra heavy, use more detergent and a longer washing time. To cut grease and oil, add ⅔ cup of household ammonia to each 10 gallons of hot wash water.

Do not overload the machine, or poor washing will be the result. You will have best results, usually, by loading 1 to 2 lbs. of dry clothes less than the weight per load suggested by the manufacturer. A combination of large and small items is advisable. Empty pockets of debris that can stain and tear garments as well as damage tubs or lodge in drain pipes.

Choose water temperature to suit the fabric and type of soil. Use soft or softened water and the correct amount of a suitable detergent.

Keep the lint trap clean. Turn off switch, pull out plug, and close valves in the water supply line (to relieve pressure) when washing is done. Be sure the washer is grounded, and protect its finish by keeping it waxed.

For more details on washing refer to "Clean, Bright Laundry," Extension F.S. 62.

OTHER FACTORS TO CONSIDER

Cost. What is the original cost? Is this a "bargain" price, manufacturer's list price, or previous year's price? Does it include trade-in? How much are the financing costs? How much for installation? Does installation cost include method of venting, additional electrical outlets, and additional wiring for heavier circuit (wattage for conventional washer, 375; automatic, 375-500; combination, 4,975-5,600)? What will be the operation costs of water and electricity? Is reliable repair service available? And what would it cost to replace the equipment?

Where shall I buy? Does the manufacturer have testing laboratories? Are there safety features? Is the dealer reliable? Will he stand behind the equipment he sells? What is the guarantee or warranty? Is service available?

Acknowledgements:

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Other pamphlets in this series:

F.S. 62 "Clean, Bright Laundry"
F.S. 83 "A Dryer for Clean, Bright Laundry"

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